

This Page Is Inserted by IFW Operations
and is not a part of the Official Record

BEST AVAILABLE IMAGES

Defective images within this document are accurate representations of the original documents submitted by the applicant.

Defects in the images may include (but are not limited to):

- BLACK BORDERS
- TEXT CUT OFF AT TOP, BOTTOM OR SIDES
- FADED TEXT
- ILLEGIBLE TEXT
- SKEWED/SLANTED IMAGES
- COLORED PHOTOS
- BLACK OR VERY BLACK AND WHITE DARK PHOTOS
- GRAY SCALE DOCUMENTS

IMAGES ARE BEST AVAILABLE COPY.

**As rescanning documents *will not* correct images,
please do not report the images to the
Image Problem Mailbox.**

GS 0443 A US

REMARKS

Applicants' attorney notes with appreciation the examiner's approval of the proposed drawing correction and the acceptance of the corrected formal drawing that accompanied the previously-filed Amendment.

Claims 1 through 3 have each been further amended to more particularly point out and more distinctly claim the subject matter that the applicants regard as their invention. Additionally, claims 7, 11, and 15 have been amended and new claims 22 through 24 have been added.

Claims 1, 7, 8, and 19 were rejected as obvious in view of the Ueda et al. '715 reference taken together with the Takamura et al. and Hattori et al. references. Ueda et al. was said to disclose a chain for a continuously variable transmission wherein rocker members forming part of the chain had a nitrided outer layer. However, the structure of the chain disclosed in Ueda et al. is different from the structure as claimed in amended claim 1. At the outset, the Ueda et al. reference does not disclose a chain structure having pairs of rocker members received in plate link openings and having rocker surfaces supported against each other. Instead, the Ueda et al. reference teaches a chain structure having inner links 10 and outer links 12, wherein the inner links are connected by connecting pins 20, and the outer links have integral, outwardly-extending blocks 30 (see Ueda et al., Figure 1) for contacting a pulley surface. Ueda et al.'s connecting pins 20 are not rocker members that have rocker surfaces supported against each other. Further, Ueda et al. merely disclose different forms of outer blocks 30 (see Ueda et al., Figures 7 through 12) that are not

GS 0443 A US

part of or associated with rocker members, as claimed in amended claim 1. And although Ueda et al. mentions in passing the nitriding of the contact surfaces of the outer blocks, it does not teach or suggest a carbon-nitrided layer, as recited in amended claim 1, nor does it teach that the conical disk surfaces contacted by rocker member end faces also have a nitrogen-enriched outer layer in the form of a carbon-nitrided layer, as also recited in amended claim 1.

The examiner recognized that Ueda et al. does not disclose the particulars of the nitrided layer, and he referred to the Takamura et al. reference as disclosing more detail of such a layer. But the Takamura et al. reference relates to a continuously variable transmission having an entirely different structure, and one that experiences operating conditions significantly different from those experienced by the structure claimed in amended claim 1. Instead of conical disk pulley surfaces against which the ends of rocker members of a plate-link chain frictionally engage, the Takamura et al. reference is directed to a toroidal type transmission, one in which there is high contact pressure between power rollers and disk surfaces, but which involves rolling contact at the wear surfaces. Additionally, the Takamura et al. reference teaches the need for shot peening of the contacting surfaces, to increase their surface hardness so they can accommodate the high contact pressures and the high rolling contact forces to which the components of that form of transmission are subjected during operation. The Takamura et al. arrangement thus involves rolling contact forces, not frictional forces such as are encountered in the structure claimed in amended claim 1. Thus, as in the case of the structure described in the Ueda et al. reference, the structure disclosed in the Takamura et al. reference is entirely different

GS 0443 A US

from that as herein claimed. Accordingly, because of those structural and operational differences, one having only ordinary skill in the art would not look to the toroidal transmission art for inspiration in connection with a solution to a problem that exists in a plate-link, chain-driven, conical-disk transmission wherein the chain includes rocker members as power-transmitting elements, nor would such a person attempt to combine the teachings of such disparate references.

The Hattori et al. reference relied upon by the examiner is also directed to a different transmission structure, one having a different belt structure that involves different operational characteristics from those encountered with the chain-driven conical-disk transmission herein claimed. Moreover, the Hattori et al. reference merely discloses nitriding of the surfaces of the laminated metallic belt 4, and particularly surfaces that come into contact with metallic blocks 5. It does not disclose a carbon-nitrided outer layer. Again, because of those structural and operational differences, one having only ordinary skill in the art would not look to the laminated belt transmission art for inspiration in connection with a solution to a problem that exists in a chain-driven conical-disk transmission having rocker members as power-transmitting elements, nor would such a person be motivated to combine the teachings of such disparate references as Ueda et al., Takamura et al., and Hattori et al. Thus, the references relied upon do not teach or suggest the structure claimed in amended claim 1, nor would their combination be resorted to by one having only ordinary skill in the art.

Claims 9 and 10 were rejected as obvious over the references relied upon in connection with claim 1, taken together with the Chiba et al. reference. The

GS 0443 A US

latter reference was cited for disclosing a particular nitrided layer depth. However, Chiba et al. does not teach a nitrided layer, as suggested by the examiner, but instead teaches a carburizing step, followed by quenching and tempering to achieve a desired case depth (see Chiba et al., col. 6, lines 23 through 26), followed by surface grinding and surface shot-peening to provide a predetermined surface roughness and surface hardness (see Chiba et al., col. 6, lines 27 through 31). There is no disclosure of a carbon-nitrided outer layer on rocker member end faces and on conical disk surfaces. Consequently, claims 9 and 10 are not obvious over the references relied upon.

Claim 2, 11 through 18, 20, and 21 were rejected as obvious over Chiba et al., taken together with Takamura et al. and Hattori et al. The Chiba et al. reference was cited for its showing of a thrust link belt in a continuously variable transmission. But the examiner recognized that Chiba et al. did not disclose particulars of a nitrided layer. The Takamura et al. and Hattori et al. references were cited for the same teachings as in connection with the rejection of claim 1. And the same distinctions apply as were noted in connection with the rejection of that claim.

As to what a person of only ordinary skill in the art would be expected to glean from particular references, it has long been recognized that such a person is not an innovator, but is guided by the particular teachings of the prior art. In that regard, the Court of Appeals for the Federal Circuit has described such a person as follows:

The issue of obviousness is determined entirely with reference to a hypothetical "person having ordinary skill in the art." It is only that hypothetical person who is presumed to be aware of all the pertinent prior art. The actual inventor's skill is irrelevant to the inquiry, and this is for a very important reason. The statutory emphasis is on a person of ordinary skill. Inventors, as a class, according to the concepts underlying the Constitution and the statutes that have created the patent system, possess something -- call it what you will -- which sets them apart from

GS 0443 A US

the workers of ordinary skill, and one should not go about determining obviousness under § 103 by inquiring into what patentees (i.e., inventors) would have known or would likely have done, faced with the revelations of references. *A person of ordinary skill in the art is also presumed to be one who thinks along the line of conventional wisdom in the art and is not one who undertakes to innovate, whether by patient, and often expensive, systematic research or by extraordinary insights, it makes no difference which.* See the last sentence of § 103, supra.

Standard Oil Co. v. American Cyanimid Co., 227 U.S.P.Q. 293, 297-98 (Fed. Cir. 1985) (emphasis added).

It is respectfully urged that one having only ordinary skill in the art would not draw from the references the conclusions that the examiner has drawn.

Additionally, because the references disclose different transmission structures, which involve different operating conditions that lead to different operating problems, one having the references before him would not be led to combine them as the examiner has done, absent the present disclosure. It is suggested that the only basis for even attempting to combine those references in the manner the examiner has done is the present disclosure, and to use against an inventor that which only he has disclosed is improper. It would require that the present disclosure be used as a road map or as a template from which to piece together isolated parts of one reference and combine them with isolated parts of another reference. Such a hindsight reconstruction of the prior art has long been said to be an improper basis upon which to predicate an obviousness rejection. In that regard, when the references relied upon are viewed by themselves and without the benefit of the present disclosure, those references provide no motivation that would lead one having only ordinary skill in the art to combine them as the examiner has done.

New claims 21 through 24 depend from respective ones of claims 1

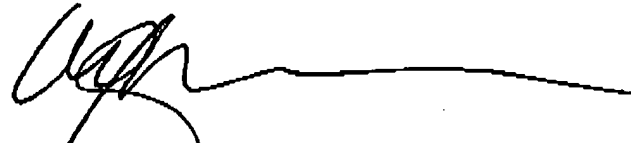
GS 0443 A US

through 3. Thus, the new claims are also distinguishable over the disclosures contained in the references relied upon, and for the same reasons as are given above in connection with the independent claims from which they depend. Moreover, each of those new claims contains additional recitations that further distinguish the invention as so claimed from the teachings of any of the references relied upon in connection with the independent claims.

Based upon the foregoing amendments and remarks, the claims as they now stand in the application are believed clearly to patentably distinguish over the disclosures contained in the references that were cited and relied upon by the examiner, whether those references be considered in the context of 35 U.S.C. § 102 or of 35 U.S.C. § 103. Consequently, this application is believed to be in condition for allowance, and reconsideration and reexamination of the application is respectfully requested with a view toward the issuance of an early Notice of Allowance.

The examiner is cordially invited to telephone the undersigned attorney if this Amendment raises any questions, so that any such question can be quickly resolved in order that the present application can proceed toward allowance.

Respectfully submitted,



October 1, 2003

Alfred J. Mangels
Reg. No. 22,805
4729 Cornell Road
Cincinnati, Ohio 45241
Tel.: (513) 469-0470

OFFICIAL

**RECEIVED
CENTRAL FAX CENTER**

OCT 01 2003